

XP-002202080

AN - 2000-658281 [64]

AP - JP19990000622 19990105

CPY - NIPQ

DC - A26 A89 G02 L03 P81

FS - CPI;GMPI

IC - C08J7/04 ; C08L83/04 ; C09D5/00 ; C09D183/04 ; G02B1/11 ; G02B5/22

MC - A06-A00E4 A12-L02A G02-A01A G02-A05 L03-G02

PA - (NIPQ ) DAINIPPON PRINTING CO LTD

PN - JP2000198964 A 20000718 DW200064 C09D183/04 009pp

PR - JP19990000622 19990105

XA - C2000-199330

XIC - C08J-007/04 ; C08L-083/04 ; C09D-005/00 ; C09D-183/04 ; G02B-001/11 ; G02B-005/22

XP - N2000-488076

AB - JP2000198964 NOVELTY - The optical functional film is formed by coating an alkoxy silane hydrolysis solution which performs hydrolysis of silicon alkoxide (I) on a base material directly or through an intermediate layer. The formed coating layer is hardened by activity energy beam such as UV rays and an organo-polysiloxane layer is formed.

- DETAILED DESCRIPTION - The optical functional film is formed by coating an alkoxy silane hydrolysis solution which performs hydrolysis of silicon alkoxide (I) represented by  $\text{RmSi(OR')}_n$

- R = reactive groups such as 1-10C alkyl, vinyl, (meth)acryloyl, epoxy, amide, sulfonyl, hydroxyl or carboxy groups;

- R' = 1-10C alkyl group;

-  $m+n = 4$

- The coating is formed on a base material directly or through a specified layer. The formed coating layer is hardened by activity energy beam such as UV rays and an organo-polysiloxane layer is formed. An INDEPENDENT CLAIM is also included for manufacture of optical functional film.

- USE - For optical lenses, window glasses, polarizing plate used for display devices, sun glasses, spectacle lens, finder lens in cameras, motor vehicles and electric trains.

- ADVANTAGE - The film has high UV blockage effect, heat reflective and reflection prevention effect. The irradiation process is performed quickly and at low temperature. Mass production is performed easily and the installation as well as manufacturing cost are reduced. The organo polysiloxane layer has high optical functional property.

- (Dwg.0/0)

IW - OPTICAL FUNCTION FILM OPTICAL LENS PLATE ORGANO POLYSILOXANE LAYER FORMING BASE MATERIAL APPLY ALKOXY SILANE HYDROLYSIS SOLUTION HARDEN ACTIVE ENERGY BEAM

IKW - OPTICAL FUNCTION FILM OPTICAL LENS PLATE ORGANO POLYSILOXANE LAYER FORMING BASE MATERIAL APPLY ALKOXY SILANE HYDROLYSIS SOLUTION HARDEN ACTIVE ENERGY BEAM

NC - 001

OPD - 1999-01-05

ORD - 2000-07-18

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TI - Optical functional film, for optical lenses, polarizing plates, has  
 organo polysiloxane layer formed on base material by applying alkoxy  
 silane hydrolysis solution which is hardened by activity energy beam  
 A01 - [001] 018 ; D01 D26 D12 D10 D23 D22 D31 D42 F93 F70 F61 F26-R F35-R  
 D60 G2277-R G2266 Si 4A ; P1445-R F81 Si 4A ; M9999 M2073 ; L9999  
 L2073 ; L9999 L2391 ; K9869 K9847 K9790  
 - [002] 018 ; B9999 B5243-R B4740 ; Q9999 Q7114-R ; Q9999 Q8286-R  
 Q8264 ; Q9999 Q7658 ; Q9999 Q7512 ; Q9999 Q8300 Q8286 Q8264 ;  
 Q9999 Q8651 Q8606 ; Q9999 Q7330-R ; Q9999 Q9234 Q9212 ; Q9999 Q9289  
 Q9212 ; B9999 B4251 B4240 ; K9869 K9847 K9790 ; K9574 K9483 ;  
 K9676-R ; ND01  
 A02 - [001] 018 ; R17002 R01853 G3645 G3634 G3623 D01 D03 D11 D10 D23 D22  
 D31 D42 D50 D63 D76 D92 F24 F34 F41 F91 H0293 P0599 ; S9999 S1285-R  
 - [002] 018 ; P1707 P1694 D01 ; S9999 S1285-R  
 - [003] 018 ; Q9999 Q8286-R Q8264 ; Q9999 Q7658 ; Q9999 Q7512 ;  
 Q9999 Q8300 Q8286 Q8264 ; Q9999 Q8651 Q8606 ; Q9999 Q7330-R ; Q9999  
 Q9234 Q9212 ; Q9999 Q9289 Q9212 ; B9999 B4251 B4240 ; K9869 K9847  
 K9790 ; K9574 K9483 ; K9676-R ; ND01 ; B9999 B5447 B5414 B5403  
 B5276 ; N9999 N7147 N7034 N7023